

REMARKS/ARGUMENTS

Claims 1-37 are pending in the application. Reconsideration is requested in view of the above amendments and the following remarks.

Applicant has amended claims 1 and 9 to more particularly articulate the invention and to distinguish the invention over the cited art. No new matter has been introduced and the claims are fully supported by the specification. Applicant has addressed the rejections below, including with reference to the amendments made to the claims. Applicant also has discussed why the embodiment of the invention recited in claim 37 relating to the parser established secure client/server implementation is not obvious in view of the cited references when considering the features claimed therein and the disclosures of the cited references.

Applicant notes the double patenting rejections and will consider submitting a terminal disclaimer when those are the only rejections that remain.

THE SECTION 101 REJECTION

Claims 18- 37 stand rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. Reconsideration and a withdrawal of the rejection is respectfully requested.

The claims have been amended to recite particular subject matter including a storage component and computer. Applicant describes the invention in connection with operating on a single computer system or multiple computer systems (see specification at pp. 4-5 [0023]). Other devices also may be utilized. (See the specification at [0033]). Applicant has amended the claims to include providing a computing component with

storage media, and configuring the storage media with software for implementing the following. . . For these reasons, the present invention is believed to recite a computing component that is tied to the method.

Accordingly, the section 101 rejection should be withdrawn.

THE 103(a) REJECTION OVER TSO ENGEL AND LOWELL

Claims 1-4, 6-8, 10, 11, 18-19, 21-25, 34 and 36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,088,803 ("Tso") in view of US Patent application Engel and in further view of US patent 6,381,632 ("Lowell"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

The Applicant's invention is not disclosed or suggested by the cited references and should be patentable. The Examiner contends that Tso discloses a method and apparatus including a protocol parser, a protocol scanner, and a proscribed code scanner including a scanning means and an indicator whereby the protocol parser intercepts instant messaging or peer-to-peer code on a communications channel and transmits said code to said proscribed code scanner through said protocol scanner (referring to col. 6, lines 10-24 of Tso and contending that the parser performs the functions of both the protocol parser and the protocol scanner).

The Examiner acknowledges that Tso fails to disclose a protocol parser that discriminates among different protocols implemented on top of the transport layer, and fails to disclose a code stream on a communications channel is what is being transmitted.

The office action considers that Engel teaches a protocol parser that discriminates between different protocols implemented on top of the transport layer (see col. 19, line 53 through col. 20 line 28 and Figs. 2 and 19).

The office action relies on Lowell for an alleged teaching of monitoring data streams on a communications channel.

The present invention is not obvious in view of the cited references.

Applicant notes that the office action acknowledges the deficiencies of the Tso reference. However, an appreciation of those deficiencies demonstrates that the proposed combination where Tso's system would be modified, would not function as Tso has disclosed. The modification would be contrary to the teachings of Tso.

Applicant discloses, as the office action understands and credits Applicant with, an invention where the protocol parser operates through an implementation on top of the transport layer. Tso appears to disclose transcoding, and, more particularly, provides for http, and the transcoding that the Tso reference refers to involves a system where the Tso parser is disclosed to manage the transcoding service.

In the arrangement shown in FIG. 5, transcoding server 34 includes an HTTP (HyperText Transfer Protocol) remote proxy 36, capable of accessing network 18 over server/network communications link 16. HTTP remote proxy 36 provides functionality different from known network proxies, which generally are little more than a conduit for requests to, and replies from, external Internet resources, in that it is capable not only of examining such requests and replies, but also of acting upon commands in the requests by, for example, determining whether or not to transcode content. Moreover, using transcoder 20, HTTP remote proxy 36 is capable of changing content received from network 18 prior to returning it to a requesting network client 12.

Looking more closely at the arrangement shown in FIG. 5, transcoder 20 is coupled to HTTP remote proxy 36. Parser 22 manages the transcoding of data to be transmitted from transcoding server 34 to network client 12. To this end, ***parser 22 controls transcode service providers 24 to selectively transcode***

content based on a predetermined selection criterion. For example, one or more transcode service providers 24 may provide the capability to compress and/or scale different types of data content, such as image, video, or HTML (HyperText Markup Language), in addition to providing the virus checking functionality as discussed above. Transcoding server 34 may also include a server-side cache memory 30 managed by a server-side cache interface 28. Server-side cache memory 30 may be used to store both original and transcoded versions of content for later transmission to network client 12 without the need to re-retrieve the content from network 18 or to re-transcode the content.

Parser 22 may comprise a relatively simple, uniform interface to HTTP remote proxy 36, and may provide an API (Application Programming Interface) for transcoding data received by HTTP remote proxy 36. Parser 22 manages one or more transcode service providers 24 that are accessed through a common SPI (Service Provider Interface). In this particular implementation, parser 22 is designed in compliance with the Windows Open Systems Architecture (WOSA), and may be implemented as a Win32 DLL (Dynamic Link Library).

(Tso. at col. 6, lines 25-64, emphasis added)

However, unlike the present invention, what Tso discloses is a system that takes place at the application layer (*as denoted by the http and the transcoding service there*). One of ordinary skill in the art would not, as the office action attempts to do, utilize or rely on Tso's teachings to arrive at the present invention. The Tso parser relied on in the office action actually is *implemented at the application layer*.

The Tso teachings are contrary to the present invention. Implementing a transcoding service at the application layer would not lead one of ordinary skill in the art to modify Tso so as to provide Applicant's invention where the parsing takes place on top of the transport layer. This would go against the proposed combinations and modifications that the office action relies on as a basis for the rejection.

Considering the additional references, there are a number of reasons why the proposed combination would not have been obvious. First, there is no teaching that Tso could be modified and how that would be accomplished without rendering Tso's teaching

unworkable. One of ordinary skill in the art would understand Tso to provide handling of a file at an application layer rather than at the transport layer. Applicant specifically discloses that “the protocol parser is placed so as to intercept code passing any channel using TCP or UDP.”

Even the Engel reference actually supports the distinctions that Applicant has pointed out with regard to the cited art. Turning to Engel, Fig. 2 illustrates layers, and, HTTP, as disclosed in Tso’s system relied on for the rejection, would be at the application layer. The office action would have the transcoder of Tso rendered inoperable, since, according to what the cited art discloses, the Tso transcoder operates at the application layer to transcode, whereas, the modification to construct the present invention would involve implementing a parser on top of the transport layer. The office action attempts to remedy the deficiency of Tso through Engel’s disclosure. Specifically, the office action considers that Engel could be combined with Tso’s teaching to implement the protocol parser of Engel in Tso to handle streams (since Tso does not do this). However, one of ordinary skill in the art would not attempt to modify a transcoding server that relies on HTTP at the application layer to provide something else that would be a different function and would not be consistent with the Tso disclosure. It would not have been an obvious modification to change the Tso disclosure so that it is not HTTP transcoding at the application layer (where it discloses its parser is), but rather something else that supplants this entire function.

In addition, Engel appears to show, in Figs. 2 and 19 and the passages cited and relied on in the office action, a protocol selection menu. There is not discrimination, but rather, active selection to be made by the user. For example, Fig. 19 is described in

connection with a user selecting a protocol from a number of protocols on a menu. That does not appear to disclose the present invention. Applicant has disclosed and claims an invention that sits on top of the transport layer and is capable of discriminating between protocols implemented on top of the transport layer. Applicant claims that its device is “provided with a protocol parser capable of discriminating among different protocols implemented on top of the transport layer.” The present invention also recites that there is a proscribed code scanner, and that the “protocol parser intercepts instant messaging or peer-to-peer code on a communications channel and transmits said code for review by said proscribed code scanner.” The invention further recites that the protocol parser is “provided to parse protocols on top of the transport layer”.

The office action further attempts to apply Engel to Tso because it contends that Engel teaches a protocol parser that discriminates between different protocols implemented on top of the transport layer. However, even assuming that Engel’s disclosure of the Real Time Parser referred to in the cited passages of Engel were considered, one would not apply this to Tso’s transcoding of HTTP in order to arrive at the Applicant’s invention where instant messaging protocols are parsed on top of the transport layer. Tso’s implementation would be at the application layer, and not, as the present invention claims, on top of the transport layer.

The Applicant’s invention provides the disclosure and teaching, and not anything in Tso. Although the office action considers that the motivation to combine the references is to allow statistics, state tracking and tracing operations to be performed (referring to Engel) and to monitor user activity on a network (referring to Lowell), this is not what Tso seeks to handle.

The transcoding disclosed in Tso at the application layer would need to take place in Tso before what the office action seeks to apply to Tso, in the way of the alleged teachings of the other references, would take place. It would not be a matter of substituting one for another, since Tso's disclosure is something different, namely the HTTP application layer transcoding.

For these reasons, the present invention would not have been obvious in view of the cited references.

Applicant also has amended claim 1 to more particularly distinguish the invention, and further provide the recitation in the claims to distinguish the transcoding of Tso and the attempts to combine the references with Tso. Applicant has amended claim 1 to recite the features of the present invention where the kernel module is injected into the code stream. This feature clearly provides a distinction over the cited combination of references. Applicant distinguishes the transcoding of Tso, but here the claimed invention is even configured differently and would function differently. Even if the cited combinations are attempted, the claimed invention recited in amended claim 1 is further removed from Tso's teachings so as to make a modification to arrive at what is claimed, based on the references cited, an unobvious change.

Claim 1, as now amended, recites the feature that:

the apparatus including at least one kernel module that is linked to a number of path names and remains operable, and wherein said kernel is configured to operate to intercept code streams when an application that the kernel module is linked to is opened, wherein said application calls the kernel to insert a kernel module in the code stream, and wherein said kernel module intercepts code passing in the stream;

wherein the kernel module is configured to intercept at least code comprising instant messaging, wherein said interception is based on one or more of code based or port based interception.

For the above reasons, and in view of the above amendments, reconsideration and a withdrawal of the rejection is respectfully requested.

THE 103(a) REJECTION OF CLAIM 9

Claim 9 stands rejected under 35 USC 103(a) as being unpatentable under the modified Tso et al. reference and Engel system, as applied above, and further in view of U.S. 6,771,949 (Corliss). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

Applicant's invention is distinguishable over the cited references.

First, for the same reasons set forth above, the present invention is not taught or suggested by the cited art.

Claim 9 also recites that the code is on a communications channel. Specifically, claim 9 recites that ". . . said protocol parser intercepts short messaging code from said code stream on a communications channel and transmits said code for review by said proscribed code scanner and said protocol parser being provided to parse protocols on top of the transport layer . . ."

Accordingly, Tso discloses application layer transcoding, and would not be modified to accept a code stream of messaging code with its parser, because transcoding is done at the application layer, as pointed out above.

Corliss does not add to the deficiencies of the references, including Tso.

In addition, claim 9 has been amended along the lines discussed above with regard to claim 1 to more particularly distinguish the invention. For the reasons set forth above, claim 9 is not obvious over the cited references.

Reconsideration and a withdrawal of the rejection with respect to claim 9 is respectfully requested.

THE 103(a) REJECTION OVER TSO, ENGEL AND JOHNSON

Claims 5, 12, 15-17, 20, 26-29, 32-33, and 35 stand rejected under 35 USC 103(a) as being unpatentable over modified Tso et al. and Engel as applied to claims 1 and 18 above and further in view of U.S. Patent 5,682,428 ("Johnson"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

The Examiner acknowledges that even the combination of Tso et al. and Engel would still fail to meet the Applicant's present invention in that these references fail to disclose decrypting the code. The Examiner therefore applies an additional reference, namely Johnson, which the office action considers to disclose decrypting data (citing to col. 27, lines 23-56). The Examiner considers that it would have been obvious to use Johnson's method of decryption in the modified Tso et al. and Engel system of code scanning and the motivation would have been to be able to reference and manipulate previously encrypted data.

First, for the same reasons as those set forth above, Applicant submits that the rejection of the claims with the further reference of Johnson still fails to teach, suggest or disclose the Applicant's present invention.

Second, Applicant has previously pointed out that reference to the Johnson citation discloses files, rather than a communications stream, which is now recited in the amended claims. Johnson does not mention a communications stream, but rather seeks to utilize a file identification code to decrypt a file. This is another reason why one would not have applied Johnson to the transcoding disclosed in Tso, or the other references.

For the above reasons, and for these additional reasons, the cited references fail to teach, suggest or disclose the Applicant's claimed invention.

THE SECTION 103(a) REJECTION OVER TSO, ENGEL, JOHNSON AND ELGAMAL

Claims 13-14 and 30-31 stand rejected under 35 USC 103(a) as being unpatentable over modified Tso et al., Engel and Johnson as applied to claims 12 and 26 above and further in view of U.S. Patent 6,389,534 ("Elgamal"). This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection are hereby respectfully requested.

For the same reasons set forth above, the Applicant's invention should also be patentable over the combination of Tso and Johnson, and even with the further combination of Elgamal.

For these reasons, reconsideration and a withdrawal of the rejection is respectfully requested.

THE 103(a) REJECTION OF CLAIM 37 OVER TSO, ENGEL,
JOHNSON AND COGGER

Claim 37 stands rejected under 35 U.S.C. 103(a) as being obvious over the modified US Patent 6,088,803 ("Tso"), Engel and Johnson, as applied to claim 30, and the further reference of US Patent Application US 20020087383. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

Applicant's invention further particularizes the implementation of the apparatus and method in claim 37, discussed below. The application of the SSL implementation is not even practical with Tso, where Tso discloses and relies on HTTP at an application layer and transcoding at that layer and Engel, which is alleged in the office action to parse streams.

Neither reference discloses the Applicant's invention where the parser creates a new SSL server and creating a new SSL client. As pointed out, the parser disclosed and relied on in Engel (see Fig. 2), would not be configured to implement a new SSL server and SSL client through which interception of code streams would take place as disclosed and claimed by Applicant. Even considering the further reference of Cogger, there is no suggestion or motivation to make the modification proposed in the office action. Cogger, in pertinent part cited by the office action, reads:

[0060] As shown in FIG. 2 , the aforesaid objects will communicate the data by establishing a secure TCP messaging session with one of the DMZ networkMCI Interact Web servers 24 via an Internet secure communications path 22 established, preferably, with a secure sockets SSL version of HTTPS. The DMZ networkMCI Interact Web servers 24 function to decrypt the client message, preferably via the SSL implementation, and unwrap the session key and verify the users session. After establishing that the request has come from a valid user and mapping

the request to its associated session, the DMZ Web servers 24 will re-encrypt the request using symmetric encryption and forward it over a second secure socket connection 23 to the dispatch server 26 inside the enterprise Intranet.

Cogger does not disclose that the SSL connection may serve as an interception path. Nor do the additional cited references disclose that the parser provides the implementation of the SSL server and SSL client interception path disclosed and claimed by Applicant. Cogger merely provides for a secure TCP messaging session, and not a parser implemented interception routine where the SSL client and SSL server may be intercepted and the proscribed code scanner operates to carry out scanning of the intercepted code stream.

If one did consider Cogger and Tso, one would not arrive at the Applicant's present invention. Tso discloses that "using transcoder 20, HTTP remote proxy 36 is capable of changing network content received from network 18 prior to returning it to a network client 12." However, Tso does not disclose providing a client and server that are secured for purposes of interception. Rather, Tso discloses and appears to be concerned with transcoding which is based on a get interface, where a hypertext object is received from a parser.

Aside from not relating to streaming code, Tso relates to objects, and, more particularly, to HTTP objects. The Applicant's present invention recited in claim 37 is not obvious in view of the cited references. Tso's transcoding HTTP objects would not have led one of ordinary skill in the art to have made the modifications set forth in the office action. Parser calls in Tso are used to manage the transcode content, by returning a transcoded version of a hypertext object or a non-transcoded original. Although the office action contends that combining teachings of the several references would render

the invention of claim 37 obvious, there is no reason for, or practicality of, combining or modifying the Tso transcoding server invention.

Even Cogger, if applied to the cited references, would not lead to the Applicant's invention, since Tso provides network connections (see 14 and 16 of Fig. 5 of Tso), and all Cogger would disclose, according to the office action, is to establish a secure messaging session with a server. This would not result in the present invention, even if combined with the references. In Tso, a HTTP object oriented parser is disclosed, and there would be no need to provide secure messaging sessions in the first place.

But even if one were to attempt to consider the combination, including with Cogger, then there would be network communications, but not a communication that the parser would intercept. According to Tso (see e.g., Fig. 5), the parser 22 is within the transcoding server, and does not provide for interception of the secure communication, as Applicant's claim 37 recites. Rather, what is disclosed in Tso, would be a parser, that, even if a secure communication were provided (e.g., at 16 where the network 18 is shown), then the parser would not set up a new server and new client and be intercepting the server and client.

In other words, the references, even if combined as proposed in the office action, still fail to provide the parser and its function and operation as recited in claim 37.

The references, taken together, fail to suggest or disclose the present invention, and accordingly, the invention recited in claim 37 should be patentable.

The Double Patenting Rejections:

Claims 1-8, 10-12, 15-29 and 32-36 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. 7,389,540 in view of Engel. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the above reasons, Applicant submits that Engel fails to disclose the present invention, and therefore, the rejection should be traversed. In the event that the double patenting rejection is the last rejection remaining, and is not traversed, Applicant will consider filing a terminal disclaimer.

Claim 9 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. 7,389,540 in view of Moore, et al. – The office action likely is referring to Engel-- and further in view of Corliss. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the above reasons, Applicant submits that Moore/Engel and Corliss fail to disclose or suggest the present invention, and therefore, the rejection should be traversed. In the event that the double patenting rejection is the last rejection remaining, and is not traversed, Applicant will consider filing a terminal disclaimer.

Claims 13, 14, 30 and 31 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. 7,389,540 in view of Moore, et al. (again likely Engel is meant by the office action) in

further view of Elgamal. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the above reasons, Applicant submits that Moore/Engel and Elgamal fail to disclose or suggest the present invention, and therefore, the rejection should be traversed. In the event that the double patenting rejection is the last rejection remaining, and is not traversed, Applicant will consider filing a terminal disclaimer.\

Claim 37 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. 7,389,540 in view of Engel, Elgamal and Cogger. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the above reasons, Applicant submits that Engel, Elgamal and Cogger fail to disclose the present invention, and therefore, the rejection should be traversed. In the event that the double patenting rejection is the last rejection remaining, and is not traversed, Applicant will consider filing a terminal disclaimer.

Claims 1 – 8 and 10-36 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. 7,404,212 in view of Engel. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the above reasons, Applicant submits that Engel fails to disclose the present invention, and therefore, the rejection should be traversed. In the event that the double patenting rejection is the last rejection remaining, and is not traversed, Applicant will consider filing a terminal disclaimer.

Claim 9 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. 7,404,212 in view of Engel and further in view of Corliss. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the above reasons, Applicant submits that Engel and Corliss fail to disclose or suggest the present invention, and therefore, the rejection should be traversed. In the event that the double patenting rejection is the last rejection remaining, and is not traversed, Applicant will consider filing a terminal disclaimer.

Claim 37 stands rejected on Claim 37 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. 7,404,212 in view of Engel, Elgamal and Cogger. This rejection is respectfully but strenuously traversed and reconsideration and a withdrawal of the rejection is hereby respectfully requested.

For the above reasons, Applicant submits that Engel, Elgamal and Cogger fail to disclose the present invention, and therefore, the rejection should be traversed. In the event that the double patenting rejection is the last rejection remaining, and is not traversed, Applicant will consider filing a terminal disclaimer.

For the above reasons, Applicant's invention is distinguishable over the cited prior art and should be patentable.

If further matters remain, the Examiner is invited to telephone the Applicant's undersigned representative to discuss them.

If an extension of time is required, the Commissioner is requested to consider this a request for a petition for the appropriate extension of time.

The Commissioner is authorized to charge any additional fees which may be required to Patent Office Deposit Account No. 05-0208.

Respectfully submitted,
HARDING, EARLEY, FOLLMER & FRAILEY
JOHN F. A. EARLEY III
FRANK J. BONINI, JR.
Attorneys for Applicant

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Frank J. Bonini, Jr.
Registration No. 35,452
P.O. Box 750
Valley Forge, PA 19482-0750
Telephone: (610) 935-2300
Facsimile: (610) 935-0600